

### 3.6 Inverse and Contrapositive

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11:04 AM

#### Vocab

Inverse: a statement formed by negating both the hypothesis and the conclusion of a conditional statement.

ex cond. state.: if you are in a classroom, then you are in a school. **F**

inverse: if you are not in a classroom, then you are not in a school. **F**

Contrapositive: a statement formed by negating both the hypothesis and the conclusion of a converse statement.

ex converse: if you are in a school, then you are in a classroom. **F**

contrapos: if you are not in a school, then you are not in a classroom. **F**

ex cond. state: if you live in PoCo, then you live in BC **T**

Converse: if you live in BC, then you live in PoCo **F**

inverse: if you do not live in PoCo, then you don't live in BC **F**

Contrapos: if you don't live in BC, then you don't live in PoCo **T**

#### Notation

" $\neg$ " = not

Cond. statement: if  $p$  then  $q$

inverse: if  $\neg p$  then  $\neg q$

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